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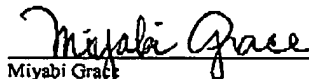
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Miyabi Grace**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Application No.** 10/683,535 **Group Art Unit:** 1642  
**Applicant(s):** Judy Dering et al. **Examiner:** to be assigned  
**Filing Date:** October 10, 2003 **Docket No.** 58027-014000  
**Title:** Constraints-Based Analysis of Gene Expression Data **Customer No.** 33717

Mail Stop IDS  
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P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT [37 C.F.R. § 1.56]**

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

This Information Disclosure Statement is being submitted within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d), or within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or before the mailing date of a first Office action on the merits, and therefore, Applicant believes no fee is required;

Consideration of the items listed is respectfully requested. Pursuant to the provisions of

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Appl. No. 10/683,535  
IDS dated October 5, 2004

Docket No. 58027-014000

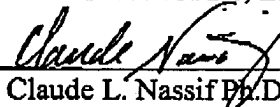
M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

No fee is due with this IDS. However, the Commissioner is hereby authorized to charge any required fee in connection with the submission of this paper, or to credit any overpayment to Deposit Account No. 50-2638.

Respectfully submitted,

GREENBERG TRAURIG, LLP

By

  
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	Application Number	10/683,535
	Filing Date	October 10, 2003
	Applicant(s)	Judy Dering et al.
	Group Art Unit	1642
	Examiner Name	to be assigned

U.S. PATENT DOCUMENTS						
EXAMINER INITIALS	DOCUMENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,665,483	May 12, 1987	Ciacchi et al.	710	114	October 10, 1984
	5,276,775	January 4, 1994	Meng	706	51	October 13, 1992
	5,452,238	September 19, 1995	Kramer et al.	703	1	November 20, 1992
	5,515,524	May 7, 1996	Lynch et al.	703	13	March 29, 1993
	5,633,995	May 27, 1997	McClain	345	419	March 18, 1996
	5,634,133	May 27, 1997	Kelley	715	503	July 11, 1994
	5,692,193	November 25, 1997	Jagannathan et al.	718	106	March 31, 1994
	5,708,798	January 13, 1998	Lynch et al.	703	1	June 7, 1995
	5,735,286	April 7, 1998	Notton et al.	600	513	March 20, 1996
	5,768,586	June 16, 1998	Zweben et al.	713	100	January 10, 1995
	5,787,283	July 28, 1998	Chin et al.	717	101	October 27, 1995
	5,799,295	August 25, 1998	Nagai	706	46	November 10, 1997
	5,813,002	September 22, 1998	Agrawal et al.	707	5	July 31, 1996
	5,830,462	November 3, 1998	Crabtree et al.	424	93.21	June 7, 1995
	5,831,853	November 3, 1998	Bobrow et al.	700	86	June 7, 1995
	5,832,270	November 3, 1998	Laffra et al.	717	125	March 26, 1997
	5,843,749	December 1, 1998	Maisonpicrre et al.	435	194	June 6, 1995
	5,869,337	February 9, 1999	Crabtree et al.	435	372.3	February 14, 1995
	5,900,870	May 4, 1999	Malone et al.	345	866	November 9, 1994
	5,970,490	October 19, 1999	Morgenstern	707	10	November 4, 1997
	6,002,854	December 14, 1999	Lynch et al.	703	1	March 10, 1997
	6,014,656	January 11, 2000	Hallmark et al.	707	2	June 21, 1996
	6,023,760	February 8, 2000	Karunen	712	300	May 16, 1997
	6,043,082	March 28, 2000	Crabtree et al.	435	320.1	September 16, 1998
	6,046,047	April 4, 2000	Crabtree et al.	435	320.1	September 16, 1998
	6,058,206	May 2, 2000	Kortge	382	159	December 1, 1997
	6,115,547	September 5, 2000	Ghatate et al.	703	13	March 13, 1995
	6,115,646	September 5, 2000	Fiszman et al.	700	181	December 18, 1997
	6,140,120	October 31, 2000	Crabtree et al.	435	372.3	September 16, 1998
	6,165,787	December 26, 2000	Crabtree et al.	435	372.3	May 29, 1998
	6,205,446	March 20, 2001	Mittal et al.	707	101	March 9, 1998
	6,216,109	April 10, 2001	Zweben et al.	705	8	October 9, 1997
	6,219,809	April 17, 2001	Noy	714	724	March 1, 1999
	6,278,997	August 21, 2001	Agrawal et al.	707	6	February 5, 1999
	6,314,473	November 6, 2001	Singer et al.	710	5	March 4, 1999
	6,338,088	January 8, 2002	Waters et al.	709	226	December 2, 1998
	6,393,473	May 21, 2002	Chu	709	223	December 18, 1998

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U.S. PATENT DOCUMENTS						
EXAMINER INITIALS	DOCUMENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,430,730	August 6, 2002	Ghatatc et al.	716	4	February 4, 2000
	6,449,589	September 10, 2002	Moore	704	9	November 16, 1999
	6,473,757	October 29, 2002	Garofalakis et al.	707	6	March 28, 2000
	6,480,859	November 12, 2002	Mittal et al.	707	101	January 25, 2001
	6,519,727	February 11, 2003	Noy	714	724	April 3, 2001
	6,560,658	May 6, 2003	Singer et al.	710	5	June 4, 2001

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIALS	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS	
EXAMINER INITIALS	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Abstract of Draghici; "The constraint based decomposition (CBD) training architecture;" Neural Netw.; May 2001; Vol. 14, Nos. 4-5; pp. 527-550.
	Abstract of Hunt; "Bright and dynamic, constantly updated and enhanced online;" J Cell Sci; 2000; Vol. 113, Pt 24; pp. 4377-4378.
	Abstract of Aluvihare; "Nature's loss, Immunologists gain;" J Cell Sci.; 2000; Vol. 113, Pt 24; pp. 4377-4378.
	Abstract of Schilling et al.; "Genome-scale metabolic model of Helicobacter pylori 26695;" J Bacteriol.; Aug 2002; Vol. 184, No. 16; pp. 4582-4593.
	Abstract of Matsuda et al.; "The receptor tyrosine kinase Ror2 associates with the MAGE-family protein Dlxin-1 and regulates its intracellular distribution;" J Biol Chem.; May 16, 2003; [epub ahead of print]
	Abstract of Yoda et al.; "Expression and function of the Ror-family receptor tyrosine kinases during development: lessons from genetic analyses of nematodes, mice, and humans.;" J Recept Signal Transduct Res.; Feb 2003; Vol. 23, No. 1; pp. 1-15.
	Abstract of Freialdenhoven et al. "Identification of Genes Required for the Function of Non-Race-Specific mlo Resistance to Powdery Mildew in Barley;" Plant Cell.; Jan 1996; Vol. 8, No. 1; pp. 5-14.
	Abstract of Peterhansel et al. "Interaction Analyses of Genes Required for Resistance Responses to Powdery Mildew in Barley Reveal Distinct Pathways Leading to Leaf Cell Death;" Plant Cell; Aug 1997; Vol. 9, No. 8; pp. 1397-1409.
	Abstract of Chauvet et al.; "Retinoic acid receptor-related orphan receptor (ROR) alpha4 is the predominant isoform of the nuclear receptor RORalpha in the liver and is up-regulated by hypoxia in HepG2 human hepatoma cells;" Biochem J.; Jun 1, 2002; Vol. 364, Pt 2; pp. 449-456.
	Abstract of Schultheiss et al.; "A small GTP-binding host protein is required for entry of powdery mildew fungus into epidermal cells of barley;" Plant Physiol.; Apr 2002; Vol. 128, No. 4; pp. 1447-1454.
	Abstract of Nomi et al.; "Loss of mRor1 enhances the heart and skeletal abnormalities in mRor2-deficient mice: redundant and pleiotropic functions of mRor1 and mRor2 receptor tyrosine kinases;" Mol Cell Biol.; Dec 2001; Vol. 21, No. 24; pp. 8329-8335.

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OTHER DOCUMENTS	
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	Abstract of Sundvold; "Identification of a novel peroxisome proliferator-activated receptor (PPAR) gamma promoter in man and transactivation by the nuclear receptor RORalpha;" Biochem Biophys Res Commun.; Sep 21, 2001; Vol. 287, No. 2: pp.383-390.
	Abstract of Al-Shawi et al.; "Expression of the Ror1 and Ror2 receptor tyrosine kinase genes during mouse development;" Dev Genes Evol.; Apr 2001; Vol. 211, No. 4: pp. 161-171.
	Abstract of Matsuda et al.; "Expression of the receptor tyrosine kinase genes, Ror1 and Ror2, during mouse development;" Mech Dev.; Jul 2001; Vol. 105, Nos. 1-2: pp. 153-156.
	Abstract of McKay et al.; "Aplysia ror forms clusters on the surface of identified neuroendocrine cells;" Mol Cell Neurosci.; May 2001; Vol. 17, No. 5: pp. 821-841.
	Abstract of Roszsmusz et al.; "Localization of disulfide bonds in the frizzled module of Ror1 receptor tyrosine kinase;" J Biol Chem.; May 25, 2001; Vol. 276, No. 21: pp. 18485-18490.
	Abstract of Collins et al.; "Sequence haplotypes revealed by sequence-tagged site fine mapping of the Ror1 gene in the centromeric region of barley chromosome 1H;" Plant Physiol.; Mar 2001; Vol. 125, No. 3: pp. 1236-1247.
	Abstract of Gawlas et al.; "Differential binding and transcriptional behaviour of two highly related orphan receptors, ROR alpha(4) and ROR beta(1);" Biochim Biophys Acta.; Dec 1, 2000; Vol. 1494, No. 3: pp. 236-241.
	Abstract of Guerrero et al.; "Nuclear receptors are involved in the enhanced IL-6 production by melatonin in U937 cells;" Biol Signals Recept.; May-Aug 2000; Vol. 9, No. 3-4: pp. 197-202.
	Abstract of Chu et al.; "Activation of the mouse oxytocin promoter by the orphan receptor RORalpha;" J Mol Endocrinol.; Dec 1999; Vol. 23, No. 3: pp. 337-346.
	Abstract of Oishi et al.; "Spatio-temporally regulated expression of receptor tyrosine kinases, mRor1, mRor2, during mouse development: implications in development and function of the nervous system;" Genes Cells; Jan 1999; Vol. 4, No. 1: pp. 41-56.
	Abstract of Saldanha et al.; "Identification of a Frizzled-like cysteine rich domain in the extracellular region of developmental receptor tyrosine kinases;" Protein Sci.; Aug 1998; Vol. 7, No. 8: pp. 1632-1635.
	Abstract of Matysiak-Scholze et al.; "The structural integrity of ROR alpha isoforms is mutated in staggerer mice: cerebellar coexpression of ROR alpha1 and ROR alpha4;" Genomics; Jul 1, 1997; Vol. 43, No. 1: pp. 78-84.
	Abstract of Oishi et al.; "A novel Drosophila receptor tyrosine kinase expressed specifically in the nervous system. Unique structural features and implication in developmental signaling;" J Biol Chem.; May 2, 1997; Vol. 272, No. 18: pp. 11916-11923.
	Abstract of Reddy et al.; "Localization of the human Ror1 gene (NTRK1) to chromosome 1p31-p32 by fluorescence in situ hybridization and somatic cell hybrid analysis;" Genomics; Apr 15, 1997; Vol. 41, No. 2: pp. 283-285.
	Abstract of Reddy et al.; "Human neural tissues express a truncated Ror1 receptor tyrosine kinase, lacking both extracellular and transmembrane domains;" Oncogene; Oct 3, 1996; Vol. 13, No. 7: pp. 1555-1559.
	Abstract of Carlberg et al.; "The orphan receptor family RZR/ROR, melatonin and 5-lipoxygenase: an unexpected relationship;" J Pineal Res.; May 1995; Vol. 18, No. 4: pp. 171-178.
	Abstract of McBroom et al.; "The nonconserved hinge region and distinct amino-terminal domains of the ROR alpha orphan nuclear receptor isoforms are required for proper DNA bending and ROR alpha-DNA interactions;" Mol Cell Biol.; Feb 1995; Vol. 15, No. 2: pp. 796-808.
	Abstract of Forman et al.; "Cross-talk among ROR alpha 1 and the Rev-erb family of orphan nuclear receptors;" Mol Endocrinol; Sep 1994; Vol. 8, No. 9: pp. 1253-1261.
	Abstract of Wilson et al.; "Dror, a potential neurotrophic receptor gene, encodes a Drosophila homolog of the vertebrate Ror family of Trk-related receptor tyrosine kinases;" Proc Natl Acad Sci U S A.; Aug 1, 1993; Vol. 90, No. 15: pp. 7109-7113.
	Abstract of Masiakowski; "A novel family of cell surface receptors with tyrosine kinase-like domain;" J Biol Chem.; Dec 25, 1992; Vol 267, No. 36: pp. 26181-26190.

LA-FS1\302135v01\58027.014000

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